

**MICROCTONUS GLYPTOSCELI N. SP., A PARASITE OF
GLYPTOSCELIS PUBESCENS (F.) IN WISCONSIN¹**

(HYMENOPTERA: BRACONIDAE: EUPHORINAE & COLEOPTERA: CHRYSOMELIDAE)

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ABSTRACT—*Microctonus glyptosceli*, n. sp., is described from Wisconsin and differentiated from its nearest congener, *M. pachylobii* Mues. The rearing of *M. glyptosceli* from *Glyptoscelis pubescens* (F.), its field incidence, and cocoon are briefly noted. The cephalic structures of the final instar larva are figured.

Klein and Coppel (1969) recorded an unknown species of *Microctonus* Wesmael reared from adult *Glyptoscelis pubescens* (F.) in Wisconsin. This paper describes the species and provides biological notes on the parasite-host association.

***Microctonus glyptosceli*, n. sp.**

(Figs. 1-4)

Holotype.—Female (C.N.C. no. 10699) reared VII 64 from adult *Glyptoscelis pubescens* (Fab.), breeding on *Pinus strobus* L. at Amery, Wisconsin, U.S.A. (M. G. Klein, H. C. Coppel).

Length 1.9 mm. Light reddish yellow; stigmaticum, stigma, and veins of fore-wing pale grey-brown; lateral lobes of mesonotum, remainder of dorsum of thorax, and dorsum of propodeum reddish brown.

Head (figs. 1, 3) 1.8 times as wide as long, 1.5 times as wide as thorax; face finely pubescent, slightly longer than wide between antennal sockets and clypeus; malar space 0.7 times as wide as base of mandible; eye 1.2 times as long as wide, with transverse diameter 2.0 times width of cheeks, distinctly wider than face; antennae with 18 segments, slightly longer than head, thorax, and propodeum combined; scape 0.6 times as long as flagellar segment 1, subequal to flagellar segments 2 and 3; pedicel 0.4 times as long as flagellar segment 1, width subequal, 0.8 times as wide as scape; POL slightly less than OOL; anterior face of lateral ocellus somewhat anterior to posterior margin of eye; occiput finely margined on sides, immargined medially the width of anterior margin of scutum.

Scutum of mesonotum completely covered with fine hair, indistinctly punctate; lateral lobes hairy anteriorly, remainder glabrous, finely punctulate; prescutal sutures narrowly, deeply impressed, indistinctly foveolate, with area of convergence small, rugulose, not separated by a median carina; antescutellar groove carinate behind and divided medially; propodeum (fig. 2) rugulose-reticulate, very short, 2.4 times as wide as long, with sides hairy, rounded, its posterior face vertical behind, relatively flat, not excavated; stigma 2.4 times as long as wide, with distal and proximal margins behind subequal; radial cell 0.6 times as long as stigma,

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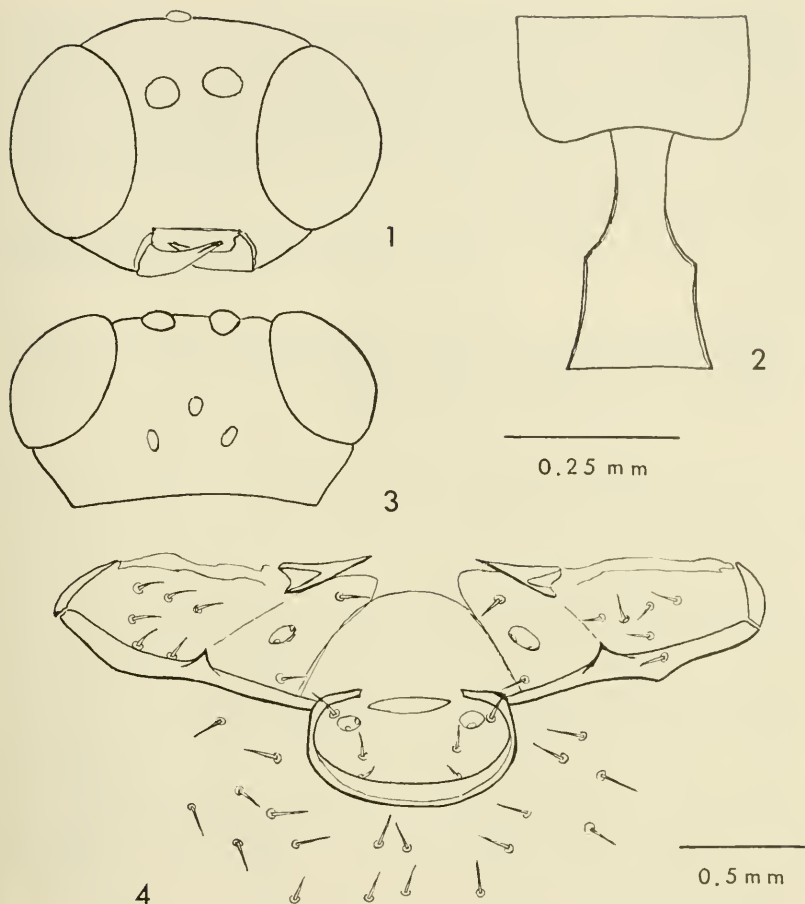


Fig. 1-4, *Microctonus glyptosceli*, n. sp.: 1, head, front view; 2, propodeum and tergite I, dorsal view; 3, head, dorsal view; 4, head of final instar larva, front view.

slightly longer than width of cell from wing margin at stigma to middle of second abscissa of radius; first abscissa of radius perpendicular, very short, 0.2 times as long as stigma width; parastigma narrow; submediellan cell quadrate at apex of nervellus; basella broken at about its middle; nervellus as long as or slightly longer than abscissa of basella, almost 2.0 times as long as marginal cilia of hind wing.

Tergite I of gaster (fig. 2) short, almost 1.7 times as long as apical width; spiracles slightly behind middle; petiole at narrowest point 0.4 times as wide as apical margin; postpetiole superficially smooth but weakly aciculate, its sides weakly carinate; ovipositor sheath slender, 1.3 times as long as tergite I, 1.2 times as long as posterior femora, 0.9 times as long as posterior tibia.

Allotype.—Male. Data as cited for female holotype.

Habitus like that of female holotype, differing as follows: cheeks, frons, vertex, and mesepisternum reddish; lateral lobes of mesonotum reddish brown; apical 0.4 of gaster behind tergite I dark reddish yellow; mesepisternum hairy; anterior face of lateral ocellus distinctly anterior to posterior margin of eye; eye almost 0.6 times as wide as long, subequal in width to upper cheek; face slightly wider than long, wider than eye; basella broken below its middle, nervellus slightly longer than basal abscissa; tergite I very short, 1.2 times as long as wide at apex, with aciculae and lateral carinae more distinct.

Paratypes.—2 ♀♀, 1 ♂, data as cited for holotype and allotype specimens: 1 ♀ (U.S. National Museum); 1 ♀, 1 ♂ (University of Wisconsin.)

Variation.—Females, 1.9–2.0 mm long; ovipositor sheath 1.3–1.4 times as long as tergite I; antennae with 19 segments.

Larva V.—Cephalic sclerites as in fig. 4.

Remarks.—*M. glyptosceli* is a distinctive species that could be confused only with *M. pachylobii* Mues. Both are small species, of a similar color, and share the striking characters of unusually short antennae and unusually large eyes. Differences are summarized as follows:

<i>M. glyptosceli</i>	<i>M. pachylobii</i>
Occiput immargined medially behind	Occiput margined behind
Flagellum widest near apex	Flagellum widest at middle
Transverse diameter of eye 2.0 times as wide as cheeks	Eye more than 2.0 times as wide as cheeks
Posterior face of propodeum flat	Propodeum excavated medially behind
Stigma less than 3.0 times as long as broad; distal, proximal margins behind subequal	Stigma more than 3.0 times as long as broad; distal margin not as long as proximal
First abscissa of radius much less than 0.5 times width of stigma	First abscissa of radius more than 0.5 times as long as width of stigma.
Host: <i>Glyptoscelis pubescens</i> (Fab.) (Coleoptera: Chrysomelidae)	<i>Pachylobius picivorus</i> Germar (Coleoptera: Curculionidae)

M. carabivorus Mues. and *M. invictus* Mues. also have large eyes, but are readily distinguishable from *M. glyptosceli* and *M. pachylobii* by long antennae and other characters noted by Muesebeck (1936, 1961) and Loan (in press).

The sharp, pronounced hypostomal spur of the stipital sclerite of the final instar larva (fig. 4) is distinctive.

Biology.—The development of *M. glyptosceli* is gregarious like that of *M. morimi* Ferriere (Grandi, 1931), *M. eleodis* Vier., (McColloch, 1918, and *M. disonychae* Loan (Loan, 1967). A total of 23 final instar larvae emerged from an adult *G. pubescens* collected July 4, 1964. This host apparently died shortly before emergence of the braconid larvae. The larvae emerged between abdominal sternite 5 and tergite

8 and spun cocoons in a glass vial within 18 hours at room temperature. The cocoons were white, 1.1–1.2 mm wide by 2.5–2.6 mm long, and had an outer covering of loose, fine silk. A total of five *M. glyptosceli* emerged 12 days after cocooning at room temperature. The adult cut a more-or-less circular opening in one side near the top of the cocoon. The remainder of the cocoons contained dead larvae, pupae, and adults. In 1963–65, 212 adult *G. pubescens* were field-collected and held in laboratory. Of these, 108 were dissected upon death and six (5.5 per cent) were parasitized by *M. glyptosceli*.

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